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FIRST TO SECOND YEAR RETENTION BASED ON
FINANCIAL AID PACKAGE: A QUANTITATIVE
STUDY

by

Emily E. Carpenter

A THESIS

Presented to the Faculty of
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Under the Supervision of Professor Debra Mullen

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May, 2013

FRESHMEN TO SOPHMORE YEAR RETENTION

BASED ON FINANCIAL AID PACKAGE: A

QUANTITATIVE STUDY

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University of Nebraska, 2013

Advisor: Debra Mullen

Retention in higher education continues to be a constant issue for administrators. The university studied for this research is one that intends to expand its current undergraduate body by more than 25% by 2017. To do this, the chancellor of the institution has claimed that increasing the retention rate is vital. As shown in many studies, if an institution can retain students into their sophomore year they are more likely to graduate them within a 6-year period. This study specifically analyzes 1,328 equity aid eligible resident students from the 2011-2012 academic year to the 2012 fall semester. A student is equity aid eligible if his or her family cannot contribute more than 10,601 dollars per year towards the student's education. Students in this study fall under three categories: equity, not equity, and not awarded. The 'equity' indicator acknowledges that the equity aid eligible student has applied for his or her financial aid package by April 1st (on time) and has received the maximum amount of \$11,000 dollars from grant aid from the federal government, state government, and institution need-based grants. Both the 'not equity' and 'not awarded' indicators acknowledge that the equity aid eligible student has applied for their financial aid package late (after April 1st) and has either received some grant aid, but not the maximum (not equity) or no grant aid at all (not awarded). This study looks at the retention of these 1,328 students from their freshmen to

sophomore year to determine if there is any correlation between the type of aid received and if they are retained or not.

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CHAPTER ONE

INTRODUCTION

Few studies examine the effect of financial aid on college attrition, even though descriptive evidence suggests that it is the financially constrained who are most likely to exit college without a degree (Singell, 2004). Retaining students at institutions of higher education continues to be a priority for administrators at all types of institutions. In fact, students are more likely to persist and complete their degree if they are retained from their first to second year (Upcraft, 2004). However, universities devote scarce resources to support retention efforts (Dale & Zych, 1996; Hood, 1999; McLaughlin, Brozovsky, & McLaughlin, 1998), and the majority of retention research focuses on student programming, advising, and academic success (DesJardins, Ahlburg, & McCall, 2002). Thus, research that focuses on other circumstances that impact retention, such as financial aid, is important.

During the 2007-2008 academic year 66% of undergraduate students used financial aid (National Center for Education Statistics, 2010). Financial aid is critical for students to not only afford the cost of an institution of higher education, but to be retained from year to year. As the cost of higher education continues to rise, Collegeboard reports that, “tuition at public four-year colleges for in-state students has risen 104% from the 1986 academic year to the 2012 academic year” (2013), so too does the importance of financial aid. Over the last 25 years, the share of public university revenues coming from tuition has climbed steadily to 47 percent for the 2012 academic year (State Higher Education Association, 2013). Although the vast majority of higher education institutions are non-profit, most rely heavily on the tuition funds that come from student loans to perform daily campus functions.

In 2010, federal and state governments spent nearly \$125 billion in need-based financial aid and individual higher-education institutions spend almost \$25 billion in university-specific grants (National Center for Education Statistics, 2011). As the cost of higher education continues to increase, the general public will ask the question of, “how important is a secondary degree?” This discussion of public investment has generated considerable interest in the effect of need-based aid on both the decision to attend college and the choice among alternative offers of admission (McPherson & Schapiro, 1991). As institutions vie to attract student, this statement is true: people with a bachelor’s degree make 84% more money over a lifetime than those who graduate from high school (Carnealve, Rose, and Cheah, 2011). Fortunately, this statistic confirms the importance of a bachelor’s degree, and in turn, the importance of retaining and graduating students in a timely manner.

The ultimate goal of the United State’s financial aid policy is to insure that academically capable students are able to earn a college degree independent of financial considerations (Leslie & Brinkman, 1988). Thus, the issue of whether need based aid reduces attrition from college is important; because prior research suggests that dropping out of school is frequently a “once-in-for-all decision” (Card & Lemieux, 2000). Tinto (1993) suggests that, “students who are more financially restrained are more likely to drop out”. Tinto’s statement is the basis for the remainder of this thesis as the research attempts to prove Tinto’s hypothesis. Additionally, students who applied for financial aid “late” (after April 1st) may not know that their financial situation could be improved in subsequent years if they simply applied for financial aid earlier. This study’s institutional Scholarships and Financial Aid Office, like most, operates on a first come, first serve basis in terms of the dollars they allocate to students. Students are allowed to start

applying for financial aid on January 1st of the year before they enter the institution. As a result, perhaps “late” freshmen are less likely to return as sophomore, especially if they are undecided about major or are struggling academically.

This study also hopes to look at some of the traditional disparities encountered while dealing with financial aid, particularly low-income families, or in this case acknowledged as “equity aid eligible”. For low-income families, how and where they attend higher education institutions are very much restricted by their financial constraints (Tinto, 2005). That being said, it is imperative that academic institutions provide students with the financial means that promote their college attendance and educational attainment (p. 38).

Purpose

The purpose of this study was to examine the correlation of financial aid packages and the retention of first to second year students from the 2011 academic year to the 2012 academic year at a large, Midwestern University. Additionally, this study analyzed several specific components of retention including: race, first generation, gender, and at what point the student applied for financial aid. This research was done primarily to assist financial aid offices to identify “at risk” students who are not likely to be retained from their first to second year of their undergraduate education due to their financial aid package. However, administrators who examine all aspects of student retention can also use the study.

Research Questions

This primary question in this study was, “When students apply for financial aid via the large, Midwestern’s office of financial aid and scholarships, if they apply on time (by April 1) or late (any time after April 1st) is there any difference of the two groups in

being retained to the sophomore year?” Although, while researching this question the author came across the following questions which she explored:

1. What are the demographics of students who are not retained from their freshmen to sophomore year?
2. Do the retained students have higher academic success than the non-retained students?
3. What are the indicators of the students who were not awarded any funds?

Definition of Terms

Many of the terms used in this study may be unique for the reader, or have multiple definitions. For the remainder of this paper the following definitions will be used for the purpose of this study:

At Risk Student – A student who applied for financial aid after April 1st deadline and had less than a 2.5 GPA by the end of their first academic year.

Equity Aid Eligible – Students who completed the Free Application for Federal Student Aid (FAFSA) and were calculated to have an Expected Family Contribution (EFC) of less than \$10,601.

Equity – If a student meets the equity indicator, he or she applied for financial aid by April 1st, and they also were granted the maximum amount of \$11,000 dollars. This \$11,000 includes the students earned family contribution. These funds do not have to be repaid, as they are grants from the University, State, or Federal Government. Equity does not include scholarships that a student may have.

Expected Family Contribution (EFC) – What each student’s family is anticipated to contribute to student’s cost of tuition per academic year.

First Generation – A student who is the first in their immediate family to attend an institution of higher education.

High Degree of Financial Aid - Students from families who the federal government estimate are able to pay for approximately one-half of the total estimated cost of attending the institution.

Not Awarded – If a student fell under the not awarded category, they applied for financial aid after April 1st and were not awarded any grant funds. These students would strictly rely on their EFC, scholarships, and loan package provided by the university.

Not Equity – If a student meets the not equitable indicator, they applied for financial aid after the April 1st deadline and were granted some funds, but not the maximum amount of \$11,000.

True Freshmen – A student’s first year in higher education. Does not include transfer students. It would also be the student’s first time applying for financial aid.

Hypotheses *Null Hypothesis*

H0: There is no connection between time of application for financial aid and retention.

Hypothesis Examining At Risk Student Retention

H1: At risk students will have a lower likelihood of returning to the institution for their sophomore year.

Hypothesis Examining Equitable Students

H2: The majority of students who are retained to their second year applied for financial aid package by April 1st.

Overarching Hypothesis

H3: If a student applied late (after April 1st), has a low GPA (less than 2.5) by the end of their Spring 2012 term, and is a first generation student they have less likelihood to return their sophomore year.

Limitations

The results of this study may have multiple limitations. First, the study only analyzes Nebraska residents who are equity aid eligible. That being said, the type of financial aid provided for the data analysis was strictly need-based grants. The study did not take into account any loan or scholarship packages that made up the rest of the students financial aid package. Additionally, if a student fell under the “not equity” indicator, the researcher did not know how much grant money the student was given, but knew it was not the maximum amount of \$11,000. The final limitation of the paper is that only true freshmen for one academic year were analyzed at one type of institution.

Significance of Study

The research done in this study is significant for multiple reasons. First, the results pertain to the ever-growing issue of retention in higher education. This study takes a unique look at the type of aid a student receives and determines if there is a correlation between the package given and if a student is retained from their first to second year at the institution. This study is unique, in that, it focuses on only the equity aid eligible students in a large, Midwestern university. Moreover, because the growth in federally subsidized, need-based aid has not kept pace with tuition increases in the last decade, the relative share of need-based, non-subsidized aid has increased in the financial aid package (Duffy and Goldberg, 1998). By focusing only on the students who depend most on financial aid in order to attend the Midwestern University one can infer that the students chance of being retained from the first to second year is related to the financial aid package the student receives. Researchers have evaluated the efficacy of various retention efforts including advising, counseling, the mentoring, and services to improve academic skills and retention-enhancing financial aid packages (DesJardins, Ahlburg, & McCall, 2002). But, few studies have examined whether financial aid improves retention

once a student has entered college. Given that non-need-based aid has been found to disproportionately benefit well-to-do students, the extent to which the overall financial aid package affects enrollment and retention could have significant direct and indirect effects on the distribution of income in the United States (Singell, 2003). Moreover, most financial aid research has not distinguished between different types of aid (DesJardins et al., 2002). This lack of research prompted the researcher to focus solely on equity eligible students. According to Kerkvliet and Nowell (2005), freshmen students are especially vulnerable to attrition. This is why the researcher focused on retention of the student's first to second year.

Summary

The increased competition for college students and the declining level of federal and state support for higher education has magnified the importance of financial aid in the access to and choice of college (Getz and Siegfried, 1991). By analyzing a large, Midwestern university's need-based portion of financial aid packages the researcher attempts to find a correlation between package indicators and retention. Continuing on through the study, Chapter 2 provides a literature review related to the impacts of financial aid and retention in higher education, with the studies focusing on different types of financial aid packages and attrition. Chapter 3 will include an explanation of how the research for this study was conducted and analyzed while Chapter 4 provides a detailed explanation and discussion of the study's results. Finally, the implications of this study and suggestions for future research can be found in Chapter 5.

CHAPTER II

LITERATURE REVIEW

The purpose of this exploratory study was to see if there was a correlation between retention and when students applied for financial aid. The focus of this chapter is to review the significant areas of literature on which this study is based. The literature review is divided into five sections: Methodology, Merit vs. Need Based Aid, Financial Aid Packaging, Academic Success and Financial Aid, and Retention Theories.

Methodology of Literature Review

The search for the literature review was done primarily through electronic search engines funded by the University of Nebraska-Lincoln libraries. The author used JSTOR, Google Scholar, Project Muse, and EBSCO Host to complete her searches. Search terms for these avenues of research included: undergraduate students, financial aid, retention, attrition, grants, low-income, subsidized aid, federal aid, financial aid package, freshmen, and retention rate. The first and primary search terms were ‘undergraduate student’, ‘retention’, and ‘financial aid’, as these were the distinct topics the research focused on. The specific types of indicators such as, ‘subsidized’ and ‘low-income’ were used as secondary search topics. In searching for specific retention rates from first to second year students based on their financial aid package was difficult to find. Most studies looked at the overall retention rate of students and what their specific financial aid packages contained. Additionally, most studies focused on surveys that students took when they dropped out or left an institution and determined that the reason they left related to ‘financial difficulties’.

Merit vs. Need Based Aid

Financial aid packages can often be broken down into two types of aid: merit and need-based aid. Need-based aid is dependent on a student’s Free Application for Federal Student Aid (FAFSA) information and is distributed based on this information first by the federal government, then by state government, and finally by the higher education institution itself. Need-based aid is distributed in the form of grants and do not have to be repaid by the student. The FAFSA allows an institution’s financial aid office to estimate the amount of aid that a student requires to fully cover college costs. This estimate is

based on the College Board and federal guidelines and ranges from a negative number for students whose financial resources exceed the cost of college to a positive number that indicates the amount of financial assistance required to cover college costs. Thus, financial eligibility is a proxy for parent wealth. The FAFSA also determines the appropriate amount of a student's expected family contribution (EFC). The EFC is what a family can afford to contribute to their student's education per their income level.

All institutions have a maximum amount of need-based aid any particular student may receive. Financial aid offices continue to rely on federal and College board guidelines to evaluate need, but there is increasing concern among higher education administrators and researchers that resources historically used for need-based aid are now being used to bid for financially and academic able students (McPherson and Schapiro, 1991).

Stater (2009) defines need-based aid as the sum of all need-based grants and loans, and merit-based aid as the sum of state and institutional non-need-based scholarship. Students will often receive some combination of need-based, merit-based, and then a loan package to cover the entirety of their undergraduate education. As the cost of a college education has continued to rise over the past twenty years, there has been a dramatic shift from grant aid (need-based) to loans, and from need-based aid to merit-based scholarships. This switch initially occurred during the Ronald Reagan administration in the late 1980s. President Reagan cut spending significantly while in office, even though the demand for loans continued to rise, albeit less rapidly. The leveling off of student aid spending was partially responsible for the shift toward loan spending and away from grant spending has continued to the present day. This shift has superseded gaps in college affordability and postsecondary educational attainment

between income groups (Chen, 2008). Students who cannot cover the cost of their education after receiving merit or need-based aid must then take out a loan package through a source outside the university.

Among studies that examine different subtypes of financial aid, specifically those that focus on loans, have reported mixed findings (e.g. St. John, Kirshstein, and Noell, 1991; Voorhees, 1985; DesJardins, et al., 2002; Astin, 1975; Carroll, 1987; Peng & Fetters, 1978) and therefore warrant additional examination. Research indicates that the failure to distinguish between loan types, such as subsidized loans vs. unsubsidized-loans, is likely to contribute to misunderstandings of loan effects (Singell, 2002; Chen, 2008). For example, need-based loans such as the Perkins loans and Stanford subsidized loans, are likely to positively relate to students' persistence; while non-need-based (or unsubsidized) loans such as the Stanford Unsubsidized loans, are found to be trivial in predicting students' retention (Singell, 2002). This study does not analyze particular loan types or packages, but the author found it important to include this information.

Merit based aid is associated with a number of different student outcomes, such as high school and college grade point average, or most often, college entrance exams (Curs and Harper, 2012). Merit based aid can cover the entirety of a student's undergraduate education, and depending on the type of merit scholarships a student receives he or she may have additional funds in cash or check form to use at their leisure.

Research indicates that merit based aid influences student outcomes consistent with their original intent, such as college enrollment decisions (van der Klaauw, 2002) and specifically, choosing four-year over two-year institutions and remaining in-state to attend a postsecondary institution. One recent study examined the effects of merit aid and found that recipients were more likely to persist in college, perhaps because students felt

more allegiance toward their chosen institutions as a result of receiving such recognition (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). Additionally research suggests that merit-aid recipients are more likely to persist simply because of their individual-level characteristics that would have predicted success regardless of the form of financial support (Hossler et al., 2008). There has been a marked increase in merit aid programs over need-based support particularly within the past decade (Cornwell, Lee, & Mustard, 2005). Exclusively merit-based aid accounted for 19% of all aid to undergraduates according to the National Association of State Student Grant and Aid Programs (n.d., p. 2). In 1993, only two states had merit aid programs, but by 2002 this number had increased to 13 states (Dynarski, 2004). More current figures reveal 27 states with such programs (National Association of State Student Grant and Aid Programs, n.d.) For the 2007-2008 academic year, there was \$2.76 billion merit-aid dollars that was allocated to undergraduate students.

A major critique of merit aid programs is that the financial support tends to benefit middle and upper income students more so than their lower income classmates (Doyle, 2008). As a result, merit-aid programs can exacerbate disparities by class and race, since race and class are correlated with middle and upper income levels. A student who receives high levels of grant due to a high level of aid eligibility may present a problem for researchers since aid eligibility is the biggest determinant of need based aid and may also suggest a lower socioeconomic status (Coonrod, 2007).

Financial Aid Packaging

According to Singell's (2001) study, financial aid offices have a significant degree of discretion in the packaging of aid and adjusts its aid offers to account for the observed self-selection of students who apply for aid. In this case, the financial aid office

accounts for different aid packages depending upon the time a student completes their application for their financial aid package.

As previously mentioned, a student's financial aid package is made up of need-based grants, merit based scholarships, expected family contribution, and finally the loans a student takes out to cover the remainder of the cost. A loan is a legal contract that includes a promise that future payment with interest will be made in exchange for cash upfront. Students who take out loans to assist in payment for their education understand that the money is not a gift, merely a cash advance. Students may take subsidized or unsubsidized loans from the government or banks.

Financial aid is generally rationed because universities have insufficient funds to fully meet the computed financial need of all applicants. Students generally apply for financial aid at the same time they apply for admission to a university (Singell, 2002). However, the earliest one can apply for the Federal Student Aid Form (FAFSA) is January 1st of the year before the student enters a higher education institution. In this study, a student is guaranteed the 'best' financial aid package if they apply for their package by April 1st. Any submitted applications for financial aid packages after this date is considered late and students are not guaranteed a best package. In terms of equity eligible aid, the student must prove via their FAFSA form that their family will provide less than \$10,601 dollars towards their education per year. If the student proves this, they are then eligible for a maximum of \$11,000 dollars in grant aid. This aid does not have to be repaid by the student. However, this equity aid also includes the students EFC, so for students who have an EFC of \$0 the maximum amount they will receive in grant aid is \$11,000 from the institution, state, and federal government. The financial aid package after this equity consists of scholarships and repayable loans.

Depending on their financial eligibility and academic background, students may receive need-based subsidized aid, unsubsidized loans, and merit-based scholarships that may induce a distinct enrollment and retention response because each yields and implicitly different subsidy. Grants, such as Pell, institutional need-based, and tuition surcharges, are the most generous form of subsidized aid because they do not have to be repaid. Subsidized loans generally defer repayment until the student graduates and charge interest rates below market, whereas college work-study often compensates students at above market rates for on-campus jobs. Unsubsidized loans are university-brokered loans from private lending sources that are not deferred until the student completes college and that charge the market rate of interest. Finally, scholarships are university-funded grants that are distributed based on merit rather than need. Third member parties such as rotary clubs, city councils, or private organizations can also give scholarships to students. Scholarships are also interacted with the most proximate GPA (high school or college) and FAFSA decision to examine if the scholarship response depends on merit and/or need, which has been found in prior work (Dynarski, 2000; Singell & Stone, 2002). Scholarship funds are not factored into the need-based package, but it is taken into account for a student's loan package.

Hossler (2000) noted that although attractive financial aid packages may initially get students to attend an institution, it is unimportant when compared to academic performance and campus integration in explaining the variance in student reenrollment patterns. He went on to explain that financial aid packages with large amounts of merit-based aid serves as an advantage in recruiting academically high performing and/or demographically desirable students. At the institution used in this study there are no scholarships distributed based on a student's racial identity. However, research shows

that students of color who are given financial aid packages that includes an extra incentive to attend an institution because they are demographically diverse lowers their attrition rate (Glenn, 2007).

Academic Success and Financial Aid

Cabrera, Nora and Castaneda (1992, 1993) found that, “students’ perceptions of their ability to pay [for college] can influence their academic performance and the extent and nature of their academic integration”. There has not been much research on the impact of financial aid and academic success. However, Stater (2009) found a positive relationship between both need and merit based aid on college GPA, with merit aid having a larger effect. Cornell, Lee, & Mustard (2005) determined that Georgia’s HOPE scholarship, which is merit based, has been associated with a .13 increase in freshman GPA among in-state students and with a reduction in students’ likelihood of taking more demanding courses, such as math and science.

Lane Coonrod (2007) argues that student academic performance is produced using two core inputs, ability and effort. He goes on to consider the effect of aid amounts on these two core determinants based on grade point average. By giving students grant money it is unlikely that their ability input will change, but it may encourage and motivate a student to apply more effort since the student realizes that it is essentially a gift rather than a natural right (p. 26). Additionally, this grant money may free up effort that a student would have otherwise dedicated to a job on or off campus to help fund their education. Coonrod (2007) also takes the opposite approach by stating, “complacency in the mind of the student is also possible when receiving grant funding,” the student may take for granted the fact the institution, state, or federal government are subsidizing four years of education. Often, this mentality comes up in policy discussion about welfare and

whether or not a welfare recipient is truly motivated to find a job or not (p. 25). Coonrod (2007) eventually takes the stance that increases in grant aid amounts will have positive effects on academic performance due to the fact the observed behavior among students.

Undergraduate academic success, as defined by GPA, is associated with or predicted by a number of pre-college and college factors. College GPA is significantly correlated with gender, race, and family income (Betts & Morell, 1999), as well as standardized test scores, merit aid, and parents' education (Kuh et al., 2008). The college experiences associated with college GPA include participation in academically engaging practices, such as making connections with faculty (Fischer, 2007), which leads students to "perform better academically, to be more satisfied, and to persist and graduate" (Kuh et al., 2008). Titus (2004) determined that, "a student's probability of persistence increases by 8% points with a one standard deviation increase in the student's college academic performance, measure by college GPA". Therefore, academic performance is a key outcome when discussing a student's likelihood of persisting to graduation.

Retention Theories

Administrators in higher education often look at retaining students in four different determinants. The first is the students' background characteristics. Ill-prepared students and those with adverse socio-economic backgrounds are more likely to drop out of college (Astin, 1997). Second, theories emphasize the importance of academic and social integration (Tinto, 1993), defined as students' identification with the university's social and institutional norms. Many universities have programs designed to improve academic and social integration. For example, residential learning communities where students in the same academic program live together in a social setting but are also able to support one another in their academic programs. The third factor that administrators

view retention of students is their balance of wage labor and college (American Council on Education, 2000). Purdue University (2001) found that 17-35% of Indiana students cite employment as the reason for dropping out of their institution. The final determinant of students ability to be retained by an institution is financial aid. Manski (1989) points out that the theoretical effect of financial aid on retention is ambiguous. Simply put, by lowering education's cost, retention is enhanced; and by encouraging experimentation by less academically prepared students, financial aid may decrease retention. While research on financial aid has focused on attracting students, its role in retention has not been extensively investigated (DesJardins et al., 2002).

In Herzog's (2005) study, he analyzed the independent variables of financial aid, high school preparation, multi-institution enrollment, and first-year academic performance to predict freshman persistence patterns at a 4-year public research institution. His study found that middle-income level students were most likely to rely on loans. Additionally, he found the most important retention theory depended on academic preparedness and performance once at the institution. Dowd and Coury (2006) analyzed data on community college students to measure persistence levels from the first year to their second year. The pair found that the best retention theory to use with these students included "financial aid education". Their study found that student loans, need-based grants, and work-study had a negative impact on persistence. Additionally, that the minority students were particularly adverse to student borrowing. In turn, by informing these students, many of who were first generation students, about the financial aid process would prove a higher retention rate. Like the non-community college students, the researchers found that personal and/or financial status and academic performance were the strongest predictors of success and persistence.

Even older research has analyzed different retention theories in relation to financial aid packages. Pascarella & Terenzini (1991) determined that financial aid plays both a positive and negative role in persistence and degree attainment. When they controlled for academic ability, the difference in persistence and graduation rates between recipients and nonrecipients of financial aid was not statistically significant. Pascarella & Terenzini's 1991 study also references Pascarella's (1980) model of student-faculty informal contact. Pascarella's (1980) retention model examines the process of how a student's characteristics fit or interplay with institutional characteristics to effect persistence. The model also emphasizes that additional exposure in the students first year to social activities and academically (with faculty), impacts retention.

As mentioned in the end of chapter 1, this paper basis much of it's retention theory on Tinto's 1975 integration model. His model of academic and social integration is seen as the foundation for much of the current research in retention, including this study. However, Tinto bases much of his work on the early works of Spady (1970), who was one of the first theorists to attempt to provide an explanation for dropout behavior. Although even Spady based his work on Durkheim's (1961) concept on establishing social support systems could reduce suicide. In short, the author credits the majority of the research and prominent literature on retention theories to Pascarella (1980), Tinto (1975), and Spady (1970). The extent to which a student feels a bond and connection with the environment and established support relationships with friends determines the basis for social success at an institution (Tinto, 1975; Spady, 1970). Academic success is characterized by grades, which provides an extrinsic reward and intellectual development, which in turn provides an intrinsic reward (Pascarella, 1980). These combined theories make up the argument for the majority of retention theories currently

used in higher education, note there is no mention of financial aid in any of these basic theories.

Some of the first studies that included financial aid into a retention theory was Fleming (1984) and Clewell and Ficklen (1986). Their studies emphasized the importance of financial aid packages, particularly for minority students. These authors made it apparent that students who must worry about having enough money to complete a college degree are often subject to deterred or hindered academic progress. Berry (1983) also found finances to be a significant variable affecting the retention of African American students. The literature also points to the need to de-emphasize loans for students of color, as many do not realize they can attain more need-based aid if they properly fill out their FAFSA form (Hawkins, 1990).

CONCLUSION

CHAPTER III

METHODOLOGY

Purpose

The purpose of this study was to determine if there is a correlation between at risk students and their ability to be retained based on their financial aid package at a large, Midwestern university.

Setting

Research for this study was conducted at the University of Nebraska – Lincoln (UNL), a large (approximately 25,000 students) four-year, public, research institution located in a Midwestern city. The University of Nebraska – Lincoln 2011 – 2012 Fact Book states that, “The role of the University of Nebraska-Lincoln as the primary intellectual and cultural resource for the State is fulfilled through the three missions of the University: teaching, research, and service” (2011, p. 5). The Nebraska State Legislature recognizes the University of Nebraska – Lincoln as the primary research and doctoral granting institution for the state and is classified as a Research Intensive University with very high research activity (Carnegie Foundation, 2010), awarding baccalaureate, masters, and doctoral degrees. Undergraduate students make up 81 percent of the total student population. In the Fall of 2012, Chancellor Perlman called for an increase in student population to 30,000 students and a 70 percent six-year graduation rate by 2017.

Research Design

The research for this study is quantitative based. The Office of Scholarships and Financial Aid at the University of Nebraska provided the data for the researcher to analyze. The data comes from the 2011-2012 academic year along with enrollment data from the fall of 2012.

Population and Sample

The data provided by the Office of Scholarships and Financial Aid included all the incoming true freshmen that were residents of Nebraska and equity aid eligible, for the 2011-2012 academic year. In the fall of 2011, there were a total of 4,093 incoming freshmen. Of these 4,093 students only 1,328 met the qualifications to be analyzed for this study. The 1,328 students were all of the Nebraska residents who were true freshmen. To appease the Institutional Review Board all of the students were given a meaningless identifier number so the researcher could proceed while being in compliance. Of these 1,328 students the researcher was able to classify them in the following categories:

- Admission ACT score,
- Admission high school percentile rank in class,
- Fall 2011 college of enrollment
- Gender
- Race
- First generation
- “On Time” Vs. “Late” Financial Aid Application
- Buffett Scholar
- Expected Family Contribution

- Enrolled Fall 2012

Specifically, the researcher broke down the information by students who were retained to their sophomore year (n = 1,019) compared to students who were not retained (n = 309). The following tables display specific demographics of these two categories: retained and failed to retain by the identifiers listed above.

Table 1
Retained vs. Non Retained Students

Type	Number of Students	Corresponding Percentage
Retained Students	1,019	76.7%
Not Retained Students	309	23.3%
Total	1,328	100%

Table 2
Student Identifiers

Average	Retained		Corresponding % of Total Students		Not Retained		Corresponding % of Total Students	
ACT	23.9		N/A		22.1		N/A	
HS Percentile	72.4%		N/A		59.1%		N/A	
Gender	M	F	M	F	M	F	M	F
	501	518	37.7%	39.0%	143	166	10.8%	12.5%
Buffett Scholar	198		14.9%		41		3.1%	
EFC	\$3,505.10		N/A		\$2,872.74		N/A	
Application	On time	Late	On time	Late	On time	Late	On time	Late
	420	599	41.2%	58.8%	125	184	40.5%	59.5%
GPA	3.027		N/A		1.628		N/A	
First Generation	283		21.3%		100		32.4%	

Table 3
Retained Students by Race and Gender

	Female	Corresponding %	Male	Corresponding %	No Choice	Corresponding %
American Indian	4	.77%	1	.21%	0	0%
Asian	25	4.8%	23	4.7%	0	0%
Black	20	3.86%	12	2.5%	2	13.3%
Hispanic	24	4.6%	26	5.3%	0	0%
HIPI	1	.19%	0	0%	0	0%
Not Specified	15	2.9%	16	3.3%	0	0%
White	382	73.75%	374	77%	13	86.7%
Two or More	47	9.07%	34	7%	0	0%
Total	518	100%	486	100%	15	100%

Table 4
Non-Retained Students by Race and Gender

	Female	Corresponding %	Male	Corresponding %	No Choice	Corresponding %
American Indian	0	0%	2	1.4%	1	20%
Asian	1	.62%	4	2.8%	0	0%
Black	11	6.83%	7	4.9%	1	20%
Hispanic	11	6.83%	6	4.2%	0	0%
HIPI	1	.62%	0	0%	0	0%
Not Specified	3	1.9%	5	3.5%	0	0%
White	114	70.8%	109	76.2%	3	60%
Two or More	20	12.4%	10	7%	0	0%
Total	161	100%	143	100%	5	100%

Research Question

When students apply for financial aid via the large, Midwestern's office of financial aid and scholarships, if they apply on time (by April 1) or late (any time after

April 1st) is there any difference of the two groups in being retained to the sophomore year?

Sub Questions

1. What are the demographics of students who are not retained from their freshmen to sophomore year?
2. Do the retained students have higher academic success than the non-retained students?

Hypotheses

The study examined four hypotheses.

Null Hypothesis

H0: There is no connection between time of application for financial aid and retention.

Hypothesis Examining At Risk Student Retention

H1: At risk students will have a lower likelihood of returning to the institution for their sophomore year.

Hypothesis Examining Equitable Students

H2: The majority of students who are retained to their second year applied for financial aid package by April 1st.

Overarching Hypothesis

H3: If a student applied late (after April 1st), has a low GPA (less than 2.5) by the end of their Spring 2012 term, and is a first generation student they have less likelihood to return their sophomore year.

Data Collection Procedures

The researcher began the study by requesting to use the data gathered by the Office of Scholarships and Financial Aid from the University of Nebraska-Lincoln. The Director of the Office of Scholarships and Financial Aid along with the Institutional Review Board from the University of Nebraska-Lincoln granted permission for the researcher to use the data. The Office of Scholarships and Financial Aid collected the

data, as all students who apply for financial aid must provide this information to the office via their FAFSA. The office provided the data to the researcher as an excel spreadsheet attachment via e-mail. The researcher could then sort and analyze the data as needed.

Data Analysis Procedures

This study analyzed the impact of retention based on a student's financial aid package. This Midwestern University provides full aid to students on a first come first serve basis until aid is exhausted; so even though the financial aid deadline is April 1st, the Office of Financial aid will continue to disperse grant based aid until it runs out. This is the reason that "not equitable" students exist. They applied after the April 1st deadline but were only granted some funds. Not awarded students were those students who applied after the April 1st deadline and were not given any grant aid. These students would solely rely on EFC, scholarships, and loan packages to pay for their college experience.

For the purpose of this study, the researcher made arrangements to analyze the data collected with the Nebraska Evaluation and Research Center (NEAR Center). Upon initial analysis, there were 20 students who did not select a male or female gender, and 39 students who did not select a race. The students who did not select a gender were not able to be included in the tests of between subjects effects, nor the independent t-test since the researcher was trying to analyze if there was any significance or correlation between gender, retention, and financial aid package. The researcher did not take into account racial preference for these statistical tests, but she did break down the retained and non-retained students by race in Tables 3 and 4. For all statistical examinations the researcher used an alpha value of .05 to determine significance levels for the hypotheses.

The subsequent chapter describes the statistical results of this study in detail. Each hypothesis is examined and the corresponding findings are reported.

CHAPTER IV

RESULTS

The purpose of this exploratory study was to determine if there is any correlation between the type of financial aid package (equity, not equity, not awarded) and a student being retained at a large, Midwestern university. A sample of 1,328 students from the University of Nebraska-Lincoln who were freshmen in the 2011-2012 academic year was used for the study. Several indicators broke down participants first by type of financial aid received, then if the student was retained to their sophomore year (2012-2013). The following paragraphs describe the statistical results for the overarching research question: “Is there significant difference in retention of students when they apply for financial aid one time (by April 1st) or late (after April 1st)?”

Hypotheses

Besides the overarching research question the researcher had four additional hypotheses that she tested for this results section. The independent samples used and compared were the three types of financial package given: equity, not equity, and not awarded. ANOVA and a between subjects analyses was also used to determine any cross correlation between gender and time of application for financial aid. The author also performed several t-tests and used the Levene’s test for equality to determine if the data’s variance was appropriate. For calculations, the researcher used the p-value of • .05 to determine whether or not results were statistically significant.

Null Hypothesis

H0: There is no connection between time of application for financial aid and retention.

Hypothesis Examining At Risk Student Retention

H1: At risk students will have a lower likelihood of returning to the institution for their sophomore year.

Hypothesis Examining Equitable Students

H2: The majority of students who are retained to their second year applied for financial aid package by April 1st.

Overarching Hypothesis

H3: If a student applied late (after April 1st), has a low GPA (less than 2.5) by the end of their Spring 2012 term, and is a first generation student they have less likelihood to return their sophomore year.

Table 5
Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Not Equity	740	.7662	.42352	.01557	.7357	.7968	0.00	1.00
Equity	545	.7706	.42081	.01803	.7352	.8061	0.00	1.00
Not Awarded	43	.7442	.44148	.06733	.6083	.8801	0.00	1.00
Total	1328	.7673	.42270	.01160	.7446	.7901	0.00	1.00

Table 6
ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.030	2	.015	.084	.920
Within Groups	237.072	1325	.179		
Total	237.102	1327			

The researcher first decided to analyze her data with an analysis of variance (ANOVA) test. This test displays whether or not the means of several groups, in this case the type of financial aid a student receives, are all-equal. Those students who were not at equity were retained at a mean quality rating of .77 ($S = .42$), whereas those students who met equity had a retained mean quality rating of .78 ($S = .42$), and students who fell under the not awarded category had a retained mean quality rating of .74 ($S = .44$). This

ANOVA test proved that there was no significance in retention of students compared to their financial aid package [equity, not equity, and not awarded] as the p-value is greater than .05, $F(2,1325) = .084$, $p = .92$, $Mse = .17$

Table 7
Between-Subjects Test

Dependent Variable:		ENR_2012.num		
Gender.num		Mean	Std. Deviation	N
female	Not Equity	.7466	.43556	367
	Equity	.7808	.41440	292
	Not Awarded	.8000	.41039	20
	Total	.7629	.42563	679
male	Not Equity	.7873	.40979	362
	Equity	.7582	.42906	244
	Not Awarded	.6957	.47047	23
	Total	.7727	.41945	629
Total	Not Equity	.7668	.42316	729
	Equity	.7705	.42089	536
	Not Awarded	.7442	.44148	43
	Total	.7676	.42253	1308

Table 8
Tests of Between-Subjects Effects

Dependent Variable ENR_2012.num								
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	.515 ^a	5	.103	.576	.718	.002	2.880	.213
Intercept	196.000	1	196.000	1096.040	.000	.457	1096.040	1.000
Gender.num	.070	1	.070	.391	.532	.000	.391	.096
TIME.num	.019	2	.009	.053	.949	.000	.106	.058
Gender.num * TIME.num	.453	2	.227	1.267	.282	.002	2.534	.276
Error	232.831	1302	.179					
Total	1004.000	1308						
Corrected Total	233.346	1307						

After analyzing the single group ANOVA, a between groups factorial ANOVA was performed on the data using a follow-up analyses with again a $p = .05$ significance

level. The researcher chose to use this type of these because she believed there to be an interaction between the time of application for financial aid, student's gender, and retention. The dependent variable in this test is whether a student was retained to the 2012 academic year. However, as one can observe all of the significance values (Sig.) for the cross factorial are all far above the .05 p-value used by the researcher. The only outlier of significance is the 'intercept' which has a sig. value of .000, but this is due to the fact that the gender indicator and time indicator had to cross at some point during the analyses, hence it having a value of 0. Like the previous ANOVA test there is no significance between a student's attrition from freshmen to sophomore year based on the time of submitting their financial aid application and their selected gender.

Table 9
Group Statistics

Gender.num	N	Mean	Std. Deviation	Std. Error Mean
male	629	.4610	.56756	.02263
female	679	.4890	.55610	.02134

Table 10
Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.043	.837	-.898	1306	.369	-.02791	.03108	-.08888	.03307
Equal variances not assumed			-.897	1293.84	.370	-.02791	.03111	-.08893	.03312

For this t-test the researcher examined the time at which students applied for their financial aid [before or after April 1st] by gender. The researcher eliminated the 22 students who did not record a gender preference for ease of statistical examination. Female students had a mean quality rating of .46 (std = .57) of applying on time, whereas

those male students who had a mean rating of .49 (std = .56) of applying on time. Like the previous tests, this t-test can prove no significance as the p-value is larger than .05, ($t(1306) = -.90, p = .37$). In short, there is no statistical significance of a male or female student applying for financial aid on time or not.

Table 11
Group Statistics

Gender.num	N	Mean	Std. Deviation	Std. Error Mean
Male	629	.7727	.41945	.01672
Female	679	.7629	.42563	.01633

Table 12
Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.699	.403	.418	1306	.676	.00977	.02339	-.03612	.05566
Equal variances not assumed			.418	1301.006	.676	.00977	.02338	-.03609	.05563

For the second t-test the researcher took the analysis one step further and looked at the retention of male and female students based on their financial aid package. Those male students who were retained had a mean quality rating of .77 (std = .42), whereas those female students who were retained had a mean rating of .76 (std = .43). Again, this test can not be noted as significant as the p-value is much larger than the chosen .05 level for significance, ($t(1306) = .418, p = .68$). The researcher again did not include the students who did not choose a gender on their application.

There were 309 non-retained students in this study, or 23.2%, of the total 1,328 students analyzed for this research. The following tables display the descriptive statistics of the students who were not retained.

Table 13

Non-Retained Students Demographics

Male : Female	Average Expected Family Contribution	Average Class Rank Percentage	Average ACT	Average GPA	First Generation
143 : 161	\$2,872.74	59%	22	1.628	100

Table 14

Non-Retained Students by College

CASNR	ARCH	CAS	CBA	CEHS	ENG	FPA	JMC	PAC	GEN
18	5	88	26	38	15	7	7	10	95

Table 15

Non-Retained Students by Race

American Indian	Asian	Black	Hispanic	Hawaiian/Pacific Islander	White	Non Specified	2 or more
3	5	19	17	1	226	8	30

Table 16

Non-Retained Students by Financial Aid Package

Not Equity	Corresponding %	Not Awarded	Corresponding %	Equity	Corresponding %
173	56%	11	3.5%	125	40.5%

There were 1,019 students, or 76.7%, who were retained from their freshmen year into the fall semester of their sophomore year. The following tables display the descriptive statistics of the students who were retained.

Table 17

Retained Students Demographics

Male : Female	Average Expected Family Contribution	Average Class Rank Percentage	Average ACT	Average GPA	First Generation
486 : 518	\$3,501.67	72.4%	23.9	3.03	283

Table 18

Retained Students by College

CASNR	ARCH	CAS	CBA	CEHS	ENG	FPA	JMC	PAC	GEN
112	30	262	93	119	89	22	33	11	248

Table 19

Retained Students by Race

American Indian	Asian	Black	Hispanic	Hawaiian/Pacific Islander	White	Non Specified	2 or more
5	48	34	51	1	769	2	109

Table 20

Retained Students by Financial Aid Package

Not Equity	Corresponding %	Not Awarded	Corresponding %	Equity	Corresponding %
567	55.6%	32	3.1%	420	41.2%

Table 21

Retained vs. Non-Retained Financial Aid Package Comparative Table

	Retained Students	Corresponding %	Not Retained Students	Corresponding %
Equity	420	41.2%	125	40.5%
Not Awarded	32	3.1%	11	3.5%
Not Equity	567	55.6%	173	56%
Total	1019	100%	309	100%

CHAPTER V

SUMMARY AND DISCUSSION

The purpose of this exploratory study was to examine if there was a correlation between a student's financial aid package and their retention from their first year to second year at a large, Midwestern university. The University of Nebraska-Lincoln's Office of Scholarships and Financial Aid provided the sample used for the study. The population included 1,328 true freshmen students who were equity aid eligible for the Fall 2011 semester. Participants were then grouped into three identifiers depending on their financial aid package: equity, not equity, and not awarded.

Summary of Findings

Four hypotheses were examined in this study. The findings from the statistical analyses were summarized for each hypothesis and were reported in the following statements.

Null Hypothesis

H0: There is no connection between time of application for financial aid and retention.

The author had to fail to reject the null hypothesis, which means that the null hypothesis holds true: there is no connection between the time of application for financial aid and retention. All of the statistical tests that were run came back as non-significant as the significance values generated were all greater than $p = .05$.

Hypothesis Examining At Risk Student Retention

H1: At risk students will have a lower likelihood of returning to the institution for their sophomore year.

As described previously, an at-risk student is one who applied for financial aid after April 1st deadline and had less than a 2.5 GPA by the end of their first academic year. There were a total of 270 students who met these criteria. Of these students, 51.1% of them were retained to their sophomore year compared to 48.9% who did not return.

Due to this, there is not enough statistical evidence to prove that students who are at risk are retained at a lower likelihood. Conversely, the majority of these students were indeed retained to their sophomore year.

Hypothesis Examining Equitable Students

H2: The majority of students who are retained to their second year applied for financial aid package by April 1st.

There were a total of 545 students, or 41% of the total population, who applied by the April 1st deadline. All of these students were equitable, meaning they received the maximum \$11,000 in grant aid combined with their EFC. Of these students 420, or 77% of them were retained to their sophomore year compared with the 125, or 23% who were not retained. Hence, the researcher has come to the conclusion that the vast majority (77%) of students who receive the maximum aid amount are retained to their sophomore year compared to their peers.

Overarching Hypothesis

H3: If a student applied late (after April 1st), has a low GPA (less than 2.5) by the end of their Spring 2012 term, and is a first generation student they have less likelihood to return their sophomore year.

Of the 270 students who applied after April 1st and had less than a 2.5 GPA, there were 77 who fell under the first generation criteria. Of these 77 students, 47, or 61% were not retained to their sophomore year compared to the 30 students, or 39% percent who were retained. These students had a combined average GPA of 1.145 with an average 19.9 ACT score. One could argue based on the percentage statistics that students who applied late, had a low GPA, and was a first generation student had a greater attrition rate than those at risk students who were not first generation.

Discussion

Besides the statistical analyses performed, the author broke down many of the different demographics between the retained and non-retained groups. There were some significant differences between the two groups. The most noticeable difference between the two groups is that retained students had an average expected family contribution of \$3,501.67, which is \$628.93 dollars more than the non-retained students whose average was \$2,872.38. Secondly, the retained students had an almost 2 points higher on their ACT score (23.9) compared to the non-retained group whose average was 22. Academically, the non-retained students had an average first year GPA of 1.628 compared to the retained group who had an average first year GPA of 3.03. Surprisingly, the percentage of first generation students in both groups was comparable: 32.4% of the non-retained students were first generation compared to 27.8% of the retained students.

In terms of retention by college, there were only four colleges that stood out statistically. Students who were in the College of Agricultural Sciences and Natural Resources (CASNR) made up 11% of the retained students compared to 5.8% of those non-retained students. Secondly, students who were in the College of Engineer (ENG) made up 8.7% of the retained student population compared to only 4.9% of the non-retained population. The College of Public Affairs and Communication (PAC) had a significant decrease in terms of retention. Students in PAC made up 3.2% of the non-retained students versus only 1.1% of the retained students. Finally, the College of General Studies (GEN) made up 30.7% of the non-retained students compared to only 24.6% of the retained students.

These percentages may have several reasons why they are significantly different. First, there are a much larger number of students (1,019) of retained students versus the non-retained (309) population. Additionally, one may infer that the larger percentage of

students who fell in the non-retained category may have been in more challenging courses within their college, such as the College of Public Affairs and Communication which made up 3.2% of the non-retained students compared to only 1.1% of the retained students. The opposite theory could be true for those colleges that retained a higher percentage of students, like the College of Agricultural Sciences and Natural Resources (CASNR), which made up only 5.8% of the non-retained students to the 11% of retained students. Additionally, the College of Engineering (ENG), which made up 4.9% of the non-retained students compared to the 8.7% of the retained students. One might also argue that the students in CASNR or ENG may be more dedicated to their schoolwork or had experiences on campus that allowed them to be retained at a significantly higher percentage. Finally, the College of General Studies (GEN) made up 30.7% of the students who were non-retained versus the 24.3% who were retained. Wyckoff (1999) states that, “retention research suggests that student commitment to educational and career goals is perhaps the strongest factor associated with persistence to degree completion”. Perhaps since all the students in the GEN college have undecided majors and, in turn, lacking career goals that their attrition rate is higher. There is evidence that early research on student retention, which indicated that students who have low aspirations or lack commitment to educational and occupational goals are more likely to leave college (Astin, 1975; Noel, Levitz, & Saluri, 1985). Although Lewallen (1995) discovered that knowledge of whether students were decided or undecided did not have any significant effect on predicting or explaining their retention.

Finally, the author also compared the retained and non-retained students per their type of financial aid package. As one can see in Table 21, 41.2% of retained students and 40.5% of non-retained students were granted full equity. Only 3.1% of the retained

students were not awarded any funds compared to 3.5% of the non-retained students. Additionally, 55.6% of the retained students and 56% of the non-retained students fell under the not equity indicator. This data also confirms the statistical analyses performed initially through the NEAR center. All of the percentages were within .7 points of one another. Hence, there is no statistical evidence to prove that there is any correlation or statistical significance between application for financial aid and being retained at the University of Nebraska-Lincoln for equity aid eligible freshmen who are residents of Nebraska.

Implications and Recommendations for Future Research

The implications of this study are unique, in that the author believed that due to previous research there would be a correlation between retention and the time of application for financial aid. However, what this research does conclude is that at least for true freshmen that are residents of Nebraska and are equity aid eligible it does not matter if one receives the maximum amount of equity to be retained from their freshmen to their sophomore year. This study did expose several indicators that administrators may take into account when analyzing the non-retained students. Not only did they have a significantly lower GPA (1.628) compared to the retained students (3.03), but their ACT score was almost two points lower than those retained students. The difference in the academic factors is not surprising, however it does confirm the significance between the two groups from the academic side of their college experience. Perhaps a more substantial difference between the two groups is the expected family contribution (EFC). The retained students had almost \$630 dollars more in their EFC compared to the non-retained students. Again, the literature supports that family financial support has direct

impact on students being retained throughout their postsecondary education (Jensen, 2011).

For higher education administrators, this study puts into light the importance of student affairs professionals. Since one can eliminate the importance of equity based financial aid on student retention, administrators can focus on analyzing the type of experience the student is having at the university. Kuh and Love (2004) found that students who made connections through social groups that reflect their culture of origin were more likely to persist in higher education. Additionally, Tinto (1975) found that students are more likely to persist and graduate in settings that provide academic, social, and personal support. Most students, especially those in their first year of college, require some form of support. Some may require academic assistance, while others may need social or personal support. These support systems can be critical for retention at any institution. This study reaffirms that it was not the financial aid package that lost the 309 students from their first to second year, but a combination of academic and student experiences.

However, other factors appear to affect the re-enrollment decision. For example, students with higher EFC's or those with higher net ACT scores are more likely to re-enroll. Thus, descriptive evidence indicates that need and ability are important determinants of whether a student continues his or her college education. In turn, the statistics in this study do not imply that financial aid improves retention.

In terms of future research, the author would suggest first and foremost a larger student population. By only analyzing one freshmen year class it limits the data. Perhaps the 2011 class analyzed would be an outlier in terms of an entire

CONCLUSION

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PERMISSION TO USE DATA FROM CRAIG MUNIER

Emily,

It was nice seeing you again. Here is what we discussed as an idea for research related to your thesis. You said you were interested in studying freshmen to sophomore retention

rates related to financial aid. Among freshmen students with a relatively high degree of financial need (defined as students from families who the federal government estimate are able to pay for approximately one-half of the total estimated cost of attending UNL), some students apply for financial aid “on time” while others apply “late”. The question is, while both groups of students have matriculated, is there any difference between the two groups in being retained to the sophomore year? Students who apply for financial aid “late” may not know that their financial situation could be improved in subsequent years if they simply applied for financial aid earlier. As a result, perhaps “late” freshmen are less likely to return as sophomore, especially if they are undecided about major, or are struggling academically.

Our input population would be the following:

Nebraska residents

New freshmen undergraduates, Fall 2011

“Equity Aid Eligible”, defined as students who completed the Free Application for Federal Student Aid (FAFSA) and were calculated to have an Expected Family Contribution of LT \$10,601

Outputs of this population would include:

“On time” or “Late” financial aid package indicator

Still enrolled Fall, 2012? (Y/N)

Cumulative GPA end of Spring, 2012 term

Admission ACT score (highest)

Admission High School Percentile Rank in Class

Fall, 2011 College of enrollment

Fall, 2011 Major

Gender

Race

First generation? (Y/N)

Buffett Scholar, Fall 2011 (Y/N)

As we discussed it is critical that no personal information be shared about these individuals so the output file will only include a meaningless number identifier; student name, NU ID or other identifying information will not be available.

Emily, I added college and major after we met. The decision of a student to return or not, is probably not reducible to a single factor (like total financial aid). My guess is that it will be a combination of factors, for example. The student was modestly prepared from high school (lower ACT or class rank), undecided on major (General Studies or undecided in their college), struggling academically (lower gpa), AND they were late applicants so did not get the best aid package. Or some combination of factors.

Let me know as soon as you get approval to move ahead and we’ll see how quickly we can get you the data. It will be provided in an Excel spreadsheet format. Please let me

know if you have questions.

Sincerely,



Craig D. Munier, Director
Office of Scholarships & Financial Aid
17 Canfield Administration Building
University of Nebraska – Lincoln
Lincoln, NE 68588-0411
ph: 402.472.3484 fax: 402.472.0226

APPENDIX B

IRB Approval



February 4, 2013

Emily Carpenter
Department of Educational Administration
1223 N 9th St Apt 111 Lincoln, NE 68508

Debra Mullen
Dean's Office of Education and Human Sciences
239 MABL, UNL, 68588-0234

IRB Number: 20130213162 EX
Project ID: 13162
Project Title: The Correlation Between Retention Rates and Financial Aid Package

Dear Emily:

This letter is to officially notify you of the certification of exemption of your project by the Institutional Review Board (IRB) for the Protection of Human Subjects. It is the Board's opinion that you have provided adequate safeguards for the rights and welfare of the participants in this study based on the information provided. Your proposal is in compliance with this institution's Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46) and has been classified as Exempt Category 4.

You are authorized to implement this study as of the Date of Exemption Determination: 02/04/2013.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:

- * Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
- * Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
- * Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
- * Any breach in confidentiality or compromise in data privacy related to the

subject or others; or

* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project. You should report any unanticipated problems involving risks to the participants or others to the Board. For projects which continue beyond one year from the starting date, the IRB will request continuing review and update of the research project. Your study will be due for continuing review as indicated above. The investigator must also advise the Board when this study is finished or discontinued by completing the enclosed Protocol Final Report form and returning it to the Institutional Review Board.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,

Becky R. Freeman

Becky R. Freeman
for the IRB

